

**ATTORNEY DOCKET NO. 19133.0029U2
PATENT**

to the primary backing material. Support for this amendment is found on page 10 lines 8-20. Claim 1 has also been amended to recite that the carpet has a tuft bind of 5 pounds or more as measured by ASTM D-1335-67. Support for this amendment is found on pages 19, lines 10-12 and on page 49, lines 21-22. New claim 15 recites that the primary backing material consists essentially of a polypropylene material. Support for this new claim is found on page 23, lines 22-28 of the specification. New claims 17 and 18 have been added to separately recite the secondary backing. Support for these new claims is found in original claim 1 and, *inter alia*, page 42, lines 14-18 of the specification. A marked-up version of the claims as amended herewith is included.

Discussion of Applicants' Amended Claims

With respect to Applicants' recitation of the term "substantial consolidation," reference is made to the specification at page 10, lines 2-7 where the meaning of the term is discussed. In particular "[a] substantially consolidated carpet processes good component adhesiveness and good delamination resistance with respect to various carpet components." With respect to the reference in the claims to "substantially penetrated," reference is made to the specification at page 19, lines 3-12. As set forth therein, penetration is discussed as being related to tuft bind strength and abrasion resistance.

Further, Applicants have amended the claims herein to recite that the carpet of the present invention has a tuft bind strength of 5 pounds or more as measured by ASTM D-1335-67. Applicants would like to point out that tuft bind is a measurement of the amount of force required to pull a single carpet tuft from its primary backing. This method is a gauge of the ability of a tufted carpet to withstand "zippering" and snags.

Tuft bind strength is to be distinguished from delamination strength in that delamination strength measures the amount of force required to strip the secondary backing from the primary carpet structure. Delamination strength is used to predict the probability that the secondary

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backing will delaminate due to flexing of the carpet structure caused by traffic or heavy rolling objects. In the context of the Fink reference, delamination strength relates to the degree at which the extruded sheet is integrally fused to the primary backing material.

Matters related to consideration of Applicants' arguments in July 31, 2002 Request for Reconsideration

As an initial matter, Applicants will address the specific matters set forth in the August 28, 2002 Office Action as response to the Arguments filed in the July 31, 2002 Request for Reconsideration.

Applicants' response to statements in Paragraph 1 of Office Action

In paragraph 1, the Office Action states "Jialanella does indeed teach the first substrate is laminated to a second substrate via the adhesion promoter. Jialanella continues to [say] that the second substrate may be a plastic material and said laminate is useful as a carpet backing." (See August 28, 2002 Office Action ("Office Action"), page 2.) Moreover, the Office Action contends that Jialanella "can be interpreted" such that the "carpet itself comprises Jialanella's three layer laminate." Applicants respectfully state that there is no objective basis presented in the Office Action for this reading of Jialanella, nor would one of ordinary skill in the art find this to be a reasonable reading of Jialanella's disclosure.

In particular, the Office Action provides no support for the contention that one of ordinary skill in the art would interpret the disclosure of Jialanella to comprise a carpet "three layer laminate." To the contrary, in the context of the disclosed uses in Jialanella *i.e.*, bathroom scales, shoe soles, carpet-backing, and automobile windshields, one of ordinary skill in the art would understand that the laminate itself is a separate material from the object to which it is applied. That is, one of ordinary skill in the art would not understand that a laminate would comprise the entire structure of a bathroom scale including the metal housing, mechanical apparatus and backing material, nor would one of ordinary skill in the art understand that a laminate would comprise the upper portion of a shoe and the bottom, or sole, of the shoe. Using

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an analogous reading of the disclosure of "carpet backing" in Jialanella, one of ordinary skill of the art would not consider the tufts and primary backing to comprise part of the carpet backing laminate. As such, it is respectfully contended that the Office Action is taking the disclosure in Jialanella out of context to support the specific grounds for rejection of the application. This is an improper reading of the reference. *See Bausch and Lomb, Inc. v. Barnes-Hind/Hydrocurve, Inc.*, 230 USPQ 416, 419-420 (Fed. Cir. 1986). (copy attached as Exhibit A.) (stating that it is improper to isolate certain aspects of a reference to support a rejection without considering the teaching of the reference as a whole.)

Applicants' response to statements in Paragraph 2 of Office Action

The Office Action is picking and choosing from among the disparate aspects of the Fink disclosure

Applicants respectfully disagree with the statements in the Office Action regarding the suitability of Fink as a reference against the claimed invention.

As pointed out in the July 31, 2002 Request for Reconsideration, Fink discloses that polyethylene materials form a "poor" tuft bind. As such, it was asserted by Applicants that Fink actually "teaches away" from the use of polyethylene materials for use as a tuft bind adhesive.

The Office Action apparently accepts this assertion when it states: "the Fink disclosure is not relied on merely for its teaching of polyethylene adhesive compositions, but rather polyolefins in general." (See Office Action, page 3). Thus, the Office Action is admittedly relying on a "general" disclosure of the use polyolefin materials as adhesive materials for providing tuft bind in carpet materials and, in so doing, the Office Action is ignoring the express disclosure in Fink that polyethylene materials do not provide a good tuft bind. Such picking and choosing from the Fink reference to apply only those aspects of the reference that will support the rejection is improper. Rather, the reference must be considered *as a whole, and portions of the reference that teach away from the claimed invention must be considered in an analysis of obviousness*. See *In re Wesslau*, 147 U.S.P.Q. 391, 393 (CCPA 1965). ("[I]t is impermissible within the framework of section 103 to pick and choose from any one reference only so much of

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it as will support a given position, to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one of ordinary skill in the art.") (copy attached as Exhibit B.)

In particular, by the express terms of the Office Action, the disclosure of Fink is being considered only for its disclosure of polyolefins in general, not of its specific disclosure that *polyethylenes do not work for the purpose intended in the Fink reference*. That is, the Office Action ignores the clear disclosure in Fink that polyethylene materials do not provide an adequate bonding and, as such, are unacceptable for use in the carpet structure to which Fink is directed. Put another way, the Fink reference, is directed toward a carpet product having a polymeric adhesive layer, where that adhesive layer is integrally fused with the primary backing material. Since polyethylene provides a "poor" bond with the primary backing, it follows that, taken as a whole, the disclosure of Fink fairly teaches that, while certain polyolefins might result in a suitable adhesion, *polyethylene materials do not meet the objectives of the Fink disclosure*. As such, it is respectfully contended that the Office Action is misapplying the Fink reference.

Fink's silence regarding Applicants' claimed adhesive polymer material

The Office Action makes reference to the fact that "the polyethylenes disclosed by Fink do not include the SLEP's disclosed by Jialanella, but rather LDPE, LLDPE, MDPE, and HDPE." (See Office Action, page 3.) From this statement, it appears that the Office Action is relying on the *absence* of the specifically recited polyethylene material from the group of polyethylenes disclosed in Fink as support for the argument that Fink's disclosure suggests or motivates the presently claimed invention. This is clearly improper because the absence of a disclosure is the antithesis of the legally required teaching or suggestion. As such, it is respectfully contended that the absence of the specific polyethylene material recited by Applicants in Fink's disclosure actually supports the patentability of the invention.

The relevance of "poor" bond strength to the reading of the Fink disclosure

Further, the Office Action states that:

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[I]t is noted that the "poor" bond strength cited by Fink in Table A is the "expected bonding strength with polypropylene" (Fink, page 19, lines 18-22) and are not necessarily descriptive of the suitability of polyethylenes as the intended extruded sheet.

(See Office Action, page 3). This is an incorrect reading of Fink. That is, as stated throughout the Fink disclosure, the objective of Fink's disclosure is to obtain "an extruded sheet integrally fused to the primary backing." (See Fink at abstract; page 8, lines, 10-11, 20, 26-27; page 9, lines 1-2, 9-10, 19-20).¹ To this end, the specification indicates that the preferred primary backing material is an isotactic polypropylene polymer. As such, the bonding strength values of Table A are directed toward the suitability of the polymer materials tested for bonding to the preferred primary backing so as to provide the objective of obtaining an extruded sheet that is integrally fused to the primary backing.

Lack of relevance of reference to polyethylene blends in Fink reference

Additionally, the Office Action notes that "when the same polyethylenes are blended with polypropylene, the bond strengths with polypropylene are 'good to excellent' (col. 4 of Table A, page 20 of Fink.)" (See Office Action, page 3.) This statement does not demonstrate that polyethylenes are suitable for the intended purpose of the Fink reference. To the contrary, the reference to blends consists of blends of polypropylene and polyethylene at from 0 to 50 % polyethylene.² It is stated in Table A that these blends provide "good to excellent" bond strength. This statement would be interpreted by one of ordinary skill in the art as only that inclusion of a small amount (or "minority") of polyethylene materials with the preferred polypropylene materials did not detract from the bond strength conferred by polypropylene.

Relevance of Table D to Applicants' arguments

Lastly, the Office Action questions the citation of Table D as support for the argument

¹ There are many more references in Fink to the fact that the object of the invention is to provide an extruded sheet integrally fused to at least the primary backing. However, for brevity, this Amendment has not referenced all of the citations.

² Table A states that the amount of polyethylene blended with polypropylene is listed in column 2 of Table C. However, Table C does not contain blend amounts. The blend amounts are actually listed in column 2 of Table

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that Fink teaches away from the claimed invention. Applicants cited this Table because it addresses the ability of polyethylene materials that are recycled from the fusion layer to be re-used as the fusion layer in a carpet product made from recycled carpet backing materials. This Table again confirms that polyethylenes are not suitable for use to provide the objective of providing an adhesive backing that is integrally fused to the primary backing.

Rejections under 35 U.S.C. § 103

The Office Action has rejected the present application as allegedly being obvious over 1) Jialanella (U.S. Patent No. 5,741,594) in view of Fink (WO 93/15909); 2) Fink in view of Jialanella; 3) Fink in view of Parikh *et al.* (U.S. Patent No. 6,444,515); and 4) Fink in view of Parikh *et al.*.

Claim 1, presently the only independent claim in the application, recites, *inter alia*, a primary backing material; a plurality of fibers attached to the primary backing material; and an adhesive backing material, wherein the adhesive backing material has substantially penetrated and substantially consolidated the fibers, wherein the adhesive polymer comprises at least one homogenously branched ethylene polymer characterized as having a short chain branching distribution index (SCDBI) of greater than or equal to 50 percent, wherein the adhesive backing material is not integrally fused to the primary backing material, and wherein the carpet has a tuft bind of 5 pounds or more as measured according to ASTM D-1335-67.

In order for the recited invention to be rendered obvious by a combination of references, the Office Action must expressly point out a suggestion or motivation in the prior art that would direct one of ordinary skill in the art to combine the references; this suggestion or motivation must be found in the prior art, not in the Applicants' disclosure. See M.P.E.P. § 2143.01. Additionally, the Office Action must demonstrate one of ordinary skill in the art would find from the combination of references a reasonable expectation of success. See M.P.E.P. § 2143.02. Lastly, the Office Action must demonstrate that the combination of references teaches or suggest each and every element of the claimed invention. See M.P.E.P. § 2143.03. As discussed in more

D. This column lists the amount of polyethylene in the polypropylene at from 0 – 50 %.

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detail below, the Office Action has not set forth the requisite *prima facie* case of obviousness.

Jialanella in view of Fink

As discussed above, the Office Action is picking and choosing from the Jialanella disclosure to obtain the support allegedly necessary for the obviousness rejection. In particular, as discussed above, the interpretation of the Jialanella disclosure presented in the Office Action is contrary to how one of ordinary skill in the art would understand the disclosure in that the laminate of Jialanella would not be viewed as comprising the entire carpet structure itself. As such, when reviewed in the manner as the reference would be reviewed by one of ordinary skill in the art, the Jialanella reference does not operate as a proper reference against the claimed invention.

Even assuming, *arguendo*, that the disclosure of Jialanella may fairly be read as contended in the Office Action, there is no suggestion or motivation in Jialanella that the substantially linear olefin polymer disclosed therein could be utilized with a tufted carpet structure to result in a carpet product where the adhesive polymer would substantially penetrate and substantially consolidate the fibers. Moreover, the Jialanella disclosure does not teach or suggest that the adhesive backing is not integrally fused to the primary backing material. To the contrary, Jialanella makes only a passing reference to use of the polymer materials disclosed therein as carpet backings; further, Jialanella makes no mention of the specific structure of any carpet that might be backed with the compositions of Jialanella. Lastly, Jialanella makes no mention that any carpet that may be backed with the polymers therein can have a tuft bind at all, let alone a tuft bind of 5 pounds or more as measured according to ASTM D-1335-67.

For the missing elements, the Office Action relies on the disclosure in Fink that certain polyolefins can provide a carpet product wherein the extruded sheet is integrally fused to the primary backing. However, there is no suggestion whatsoever in Jialanella that the polymer materials disclosed therein may be utilized as an adhesive backing to provide a carpet having the properties recited in the claims. Thus, there is no showing in the cited prior art that the disclosure of Jialanella can be combined with the Fink disclosure as contended in the Office

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Action.

Additionally, the claims as amended recite that the carpet structure does not have an adhesive backing that is integrally fused with the primary backing. Since the obtaining of a carpet structure where the adhesive backing material is integrally fused with the primary backing material is the express objective of Fink, by definition, Fink cannot supply this missing element to the disclosure of Jialanella to result in the claimed invention.

Moreover, Fink does not address in any manner that the carpet therein may have a tuft bind strength as recited in the amended claims. To the contrary, since Fink is directed toward integrally fusing the extruded backing to the primary backing, the Fink disclosure is directed toward measurement of the delamination strength of the carpet structures therein. (*See Fink at pages 14-15, lines 35-4; pages 27-28, Examples 1-3.*) Moreover, although Fink mentions that the extruded sheet may penetrate the primary backing, tufts of face fiber and/or secondary backing (*See Fink, page 15, lines 5-13*), there is absolutely no discussion of that the extruded sheet material therein will substantially penetrate and substantially consolidate the fibers so as to provide a carpet having a tuft bind strength of 5 pounds or more. Accordingly, since these recited elements are missing from Fink, the combination of references does not teach or suggest *each and every claimed element* in Applicants' invention. Accordingly, a *prima facie* case of obviousness has not be presented for this additional reason.

Fink in view of Jialanella

The Office Action rejects claims 1-6 and 9-12 in as obvious over Fink in view of Jialanella. As discussed above, when the entire reference is reviewed for what it fairly discloses, Fink is not a proper reference against the claimed invention.

Even assuming, *arguendo*, that Fink is a proper reference against the claimed invention, no *prima facie* case of obviousness has been presented. The claims as amended recite that the carpet structure has an adhesive backing that is not integrally fused to the primary backing material. Fink does not teach or suggest that this element may be obtained. To the contrary, the express objective of the Fink disclosure is to obtain a carpet structure having this property.

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Therefore, Fink cannot comprise a proper primary reference against the claimed invention for at least this reason.

Moreover, Fink does not suggest in any manner that the polyethylene materials of Jialanella may be utilized to provide an adhesive backing for a tufted carpet structure, nor does it suggest that polyethylene materials will substantially penetrate and substantially consolidate the fibers. Additionally, Fink does not teach or suggest that a carpet structure having a tuft bind strength of 5 pounds or more can be obtained. As such, it is contended that a *prima facie* case of obviousness has not been presented for this additional reason.

Further, there is no reasonable expectation of success presented by the combination of Fink with Jialanella. To the contrary, as discussed in detail herein, Fink teaches away from the present invention because it expressly states that polyethylene materials will not result in an adhesive backing material that is integrally fused to the primary backing material. Thus, one of ordinary skill in the art would not combine the disclosures of Fink and Jialanella because it is clear from Fink that such a combination would not work. It then follows that one of ordinary skill in the art would not use a type of polyethylene that is not even mentioned in Fink. Accordingly, it is stated that a *prima facie* case of obviousness has not been presented for this additional reason.

Parikh et al. in view of Fink

The Office Action contends that Parikh *et al.* "teaches the present invention with the exception of the carpet structure." In support of this assertion, the Office Action cites the portion of Parikh *et al.* that states that the compositions of the present invention "may be readily extruded onto a variety of substrates, including but not limited to carpet backing." (See Office Action, page 4.). Applicants respectfully contend that this disclosure of Parikh *et al.* is being taken out of context. That is, the fair reading of Parikh *et al.* is that the materials therein are pressure sensitive adhesives for use in sealing two surfaces together, as in adhering a carpet backing to a floor, not for use as a tuft bind adhesive.

In particular, the disclosure of Parikh *et al.* is directed toward the use as the adhesive

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materials as pressure sensitive adhesives. As would be recognized by one of ordinary skill in the art, in order for a pressure sensitive adhesive to be effective to provide a durable adhesive bond, the adhesive will have to remain on the surface of the object to be adhered. If it substantially penetrates and consolidates the fibers, as is recited in the claims, the adhesive would not be present on the surface to provide an adhesive bond. One of ordinary skill in the art would not find any suggestion or motivation that the adhesive material of Parikh *et al.* could be utilized as claimed in the present invention.

This reading is supported in the instant specification where the use of pressure sensitive adhesives is addressed. As detailed on page 48, lines 10-24, a pressure sensitive adhesive is applied to the bottom surface of the *already extrusion-backed carpet*. Indeed, the pressure sensitive adhesive disclosed in Parikh *et al.* *i.e.*, a substantially linear ethylene polymer formulated with tackifiers and polymeric waxes, is disclosed in Applicants' specification as a pressure sensitive adhesive material that can be used to provide a "peel and stick" carpet tile product. This further demonstrates that one of ordinary skill in the art would not read Parikh *et al.* to teach or suggest that the pressure sensitive adhesives therein would be suitable as claimed in the present invention.

Furthermore, Parikh *et al.* is silent that the carpet structure would have an adhesive backing material that is not integrally fused to the primary backing material. Additionally, Parikh *et al.* does not teach or suggest in any manner the tuft bind strength recited in the amended claims.

To supply the missing elements, Office Action makes an statement that:

[I]t is well-known in the art for an adhesive backcoat to be in intimate contact with the primary backing and penetrating and consolidating the tuft fibers of said primary backing. Specifically, this is the intended purpose of an adhesive backcoat: to penetrate and consolidate the tufts backloops and the primary backing in order to secure said tufts in said primary backing.

(See Office Action, page 5.) The Office Action provides support for this assertion by citing Fink. Thus, Fink must supply the elements missing from the Parikh *et al.* disclosure—that the polyethylene-containing adhesive disclosed in Parikh *et al.* will result in a carpet product where

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the specifically recited polyethylene adhesive backing material substantially penetrates and consolidates the fibers wherein the adhesive backing material is not integrally fused with the primary backing material and the carpet has a tuft bind strength of 5 pounds or more. However, as discussed previously, Fink is expressly directed toward obtaining a carpet structure wherein the adhesive backing is integrally fused with the primary backing material. As such, Fink necessarily teaches away from a carpet structure that does not exhibit integral fusing. Further, Fink addresses only the delamination strength of the carpets therein; there is no teaching or suggestion that the structure therein may have a tuft bind strength of 5 pounds or more. Therefore, the combination of Parikh *et al.* with Fink does not result in a *prima facie* case of obviousness.

Fink in view of Parikh et al.

The Office Action has also rejected the invention over Fink in view of Parikh *et al.* Again, Fink teaches away from a carpet structure wherein the adhesive backing material is not integrally fused with the primary backing material. By definition, such teaching away means that Fink does not operate as a proper primary reference against the claimed invention.

Even assuming *arguendo* that Fink might serve as a proper primary reference against the claimed invention, Parikh *et al.* does not provide the missing elements. Parikh *et al.* does not disclose in any manner the details of the carpet structure which could be backed with the polyethylene adhesive materials disclosed therein. Further, as discussed in detail above, Parikh *et al.*'s adhesive material is a pressure sensitive adhesive. Such materials are used in carpets to glue the carpet, especially carpet tile, to the floor, not as an adhesive backing to substantially penetrate and substantially consolidate the tufts. Moreover, Parikh *et al.* does not teach or suggest in any manner that a carpet structure might have the tuft bind strength now claimed. As such, the combination of Fink with Parikh *et al.* does not render the present invention obvious for at least these additional reasons.

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PATENT****Matters related to paragraph 9 of the Office Action**

Paragraph 9 of the Office Action states that "[t]he prior art made of record and not relied upon is considered pertinent to applicant's disclosure." (See Office Action, page 6.) The instant application has an earliest priority date of February 28, 1997. Thus any issued U.S. patent with a filing date after this date will not constitute prior art to the instant application. Also, any non-U.S. patent reference published after this date will not constitute prior art to the claimed invention. However, several of the references provided in the Office Action which are apparently considered to be "pertinent" prior art are not, in fact, prior art to the claimed invention. These references are as follows:

Reference	Issue Date/Publication Date	Earliest Priority Date
U.S. 5,849,389	12/15/98	03/10/97
U.S. 6,187,424 B1	02/13/01	09/08/97
U.S. 6,300,398 B1	10/09/01	04/14/97
2001/0046581A1	11/29/01	04/18/01
WO 9838376A1	06/26/97	N/A
WO 9838374A2	09/28/98	N/A
WO 9838375A2	09/28/98	N/A
WO 9838376A1	09/28/98	N/A

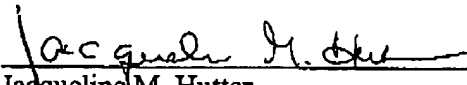
Because the references set out in the above Table do not constitute prior art to the claimed invention, citation to these references in the Office Action is improper. As such, Applicants respectfully request that the citation to these references be stricken so that these references do not appear on the front page of any patent issuing from the instant application.

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In light of the Amendments and arguments herein, it is believed that the claims are in condition for allowance and Applicants respectfully seek notification of same.

No fee is believed due; however, the Commissioner is hereby authorized to charge any fees that may be required, or credit any overpayment to Deposit Account No. 14-0629.

Respectfully submitted,


Jacqueline M. Hutter
Registration No. 44,792

NEEDLE & ROSENBERG, P.C.
The Candler Building
127 Peachtree Street, N.E.
Atlanta, Georgia 30303-1811
(404) 688-0770

CERTIFICATE OF FACSIMILE TRANSMISSION

I hereby certify that this AMENDMENT AND EXHIBITS are being sent via facsimile transmission addressed to: (703) 872-9310, ATTN: Examiner C. Juska, Box Non-Fee Amendment, Commissioner of Patents, Washington, D.C. 20231 on the date below.


Jacqueline M. Hutter

10/28/02
Date

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MARK-UP VERSION OF CLAIMS

1. A carpet comprising:
- a. a primary backing material having a face and a back side[.];
 - b. a plurality of fibers attached to the primary backing material and extending from the face of the primary backing material and exposed at the backside of the primary backing material[.]; and
 - c. an adhesive backing material [and an optional secondary backing material adjacent to the adhesive backing material], wherein the adhesive backing material has substantially penetrated and substantially consolidated the fibers, wherein the adhesive backing material [or the optional secondary backing material is comprised of] comprises at least one homogeneously branched ethylene polymer characterized as having a short chain branching distribution index (SCBDI) of greater than or equal to 50 percent [and is in intimate contact with the primary backing material and has substantially penetrated and substantially consolidated the fibers], and wherein the carpet has a tuft bind of 5 pounds or more as measured according to ASTM D-1335-67.

Please add the following new claims:

- 15. The carpet of claim 1, wherein the primary backing material consists essentially of a polypropylene material.
- 16. The carpet of claim 1 further comprising a secondary backing material adjacent to the adhesive backing material.
- 17. The carpet of claim 16, wherein the secondary backing material comprises at least one homogenously branched ethylene polymer characterized as having a short chain branching distribution index (SCBDI) of greater than or equal to 50 percent.